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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 10/684,981
Filing Date: October 14, 2003
Appellant(s): INOUE ET AL.

Jason T. Evans (57,862)
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 12/12/2007 appealing from the Office action mailed 06/07/2007.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interference**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

There is an appeal of application 10/406109, which is a related application and may or may not have a bearing on this appeal. It has not been docketed for a hearing on the Appeal yet.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

**The appellant failed to list the obviousness type double patenting rejections. To reduce the issues, the examiner has withdrawn some of these limiting the rejection to those where the primary reference recites both plural recording (bi)layers and dielectric layers. It is unclear what the applicant/appellant intends as the status of the obviousness double patenting rejections.**

1. Claims 15,17,21,23,25,27,29 and 31-34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 17-27,29 & 31 of copending Application No. 10/748979 (US 2004/0152016) in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

2. Claims 15,17,21,23,25,27,29 and 31-34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3,7,10,13,16,19,22 & 25 of copending Application No. 10/717831 (US 2004/0110086).

3. Claims 15,17,21,23,25,27,29 and 31-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24 of US patent 7018695 in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

4. Claims 15,17,21,23,25,27,29 and 31-34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of copending Application No. 10/764805 (US 2004/0157158) in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

5. Claims 15,17,21,23,25,27,29 and 31-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of US patent 7276274, {formerly 10/613525 (US 2004/0052194)} in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

6. Claims 15,17,21,23,25,27,29 and 31-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of patent 7321481 { formerly copending Application No. 10/612615 (US 2004/000493)} in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

| | | |
|---|---|---|
| **6,449,239** | **Uno et al.** | **09/2002** |
| **4,683,321** | **Takaoka et al.** | **07/1987** |
| **2001/0021160** | **Shuy et al.** | **09/2001** |
| **2002/0168587** | **Sakue et al.** | **11/2002** |
| **WO 02/29787** | **Uno et al.** | **04/2002** |
| **2004/0152016** | **Mishima et al.** | **08/2004** |
| **2004/0110086** | **Kakiuchi et al.** | **06/2004** |
| **7018695** | **Kakiuchi et al.** | **03/2006** |
| **2004/0157158** | **Kakiuchi et al.** | **08/2004** |
| **7276274** | **Inoue et al.** | **10/2007** |

**Patents 7276274 and 7018695 are newly cited, in place of the published applications as these have matured into patents.**

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

7. Claims 15, 16, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uno et al. '239.

Uno et al. '239 in an example describes a polycarbonate substrate, a silica,-ZnS lower dielectric layer, GeCrON interface layer, a GeTeSb recording layer, a GeCrON interface layer, an AlON layer and a Au reflective layer. The sputtering process is also described. (14/ 62-

15/65). The use of multilayered optical recording media is disclosed with respect to Figures 7 and 8 and the text in column 17, but uses a GeCrN interfacial layer. The use of Ti-O-N, Ta-O-N, Ge-O-N, Cr-O-N, Si-O-N, Al-O-N, Nb-N-O, Mo-O-N, Zr-O-N, with oxides $TiO_2$ and $Ta_2O_5$ being disclosed for interface layers (8/21-46). The examiner notes that the GeTeSb layer is used with a 405 nm laser.

It would have been obvious to one skilled in the art to modify the first examples by adding another recording layer as shown in Figures 7 and 8 to increase the information capacity of the recording medium and/or it would have been obvious to use other oxynitrides disclosed such as Ti-O-N, Ta-O-N, in place of the GeCrN interface layer used in the example with a reasonable expectation of forming a useful optical recording medium based upon the disclosure of equivalence.

The appellant argues that the Uno et al. do not teach oxides with nitrogen added in the layers. This is without merit and the examiner points out that the specific disclosure of Ti-O-N, Ta-O-N, Ge-O-N, Cr-O-N, Si-O-N, Al-O-N, Nb-N-O, Mo-O-N, Zr-O-N for interface layers 4 and 6 which embraced the range of oxygen and nitrogen. Further, the nitride of Titanium is TiN and the oxide is $TiO_2$, so even if these were formed in equal amounts (TiN content equal to the $TiO_2$ content), the oxygen would be a larger percentage of the composition. The appellant is invited to show criticality for the full scope of coverage sought, specifically including the case where the recording layers are phase change layers. The rejection stands.

When the light is incident through the substrate as shown in Figures 7 and 8 of Uno et al. '239, the use of Ti-O-N, Ta-O-N in the interface layers would have these on both sides of the recording layers and so the argument that they are not on the light incident side is without merit.

The examiner recognizes that in terms of atomic %, the oxygen would be present in a higher amount than nitrogen and so even with equal amounts, the Ti/Ta-O-N the $TiO_2$ or $Ta_2O_5$ would inherently be primary component. The examiner has not rejected the claims where the nitrogen is in the 1-12% range. **The appellant has a basis for 3-200 nm for the thickness and exemplifies thicknesses of 30, 17 and 23 nm in the examples. The appellant may wish to exclude very thin layers to obviate the rejections where the TiON or TaON layers are interfacial layers**. The rejection stands.

8. Claims 15, 16, 21, and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uno et al. WO 02/2978 and Sakaue et al. '587.

Uno et al. WO 02/29787 teach the use of Ti-O-N, Ta-O-N, Ge-O-N, Cr-O-N, Si-O-N, Al-O-N, Nb-N-O, Mo-O-N, Zr-O-N for the protective layers 3 and 7 ((14/1-10) and [0047] in the corresponding Uno et al. '069). The use of Ti-O-N, Ta-O-N, Ge-O-N, Cr-O-N, Si-O-N, Al-O-N, Nb-N-O, Mo-O-N, Zr-O-N for interface layers 4 and 6 ((14/19-15/4) and [0049] in the corresponding Uno et al. '069). Figure 3, shows an optical recording medium with two recording layers (103,203)

Sakue et al. '587 teach the recording medium of working example 1, where $Ta_2O_5$ sputtered in a mixture of Ar and $N_2$ to form the barrier layer [0061] between the recording layer and the reflective layer. [0054-0062]. The use of other materials including GeON, SiON or AlON in place of the TaON is disclosed. [0068]. See also example 3, and the examples described in table 3 [0079-0089]. The use of TaON yields a better signal amplitude, reduced corrosion and

improved thermal conductivity (heat dissipation). [0072-0073]. The varying of the composition of the nitrogen in the sputtering atmosphere is disclosed [0080-0085] .

It would have been obvious to one skilled in the art to modify the example of Sakaue et al. '587 by adding another recording layer as shown in Figures 7 and 8 of Uno et al. WO 02/2978 to increase the information capacity of the recording medium and/or it would have been obvious to use other oxynitrides disclosed such as Ti-O-N, Ta-O-N, in place of the GeCrON interface layer in a medium corresponding to Figure 3 of Uno et al. WO 02/2978 based upon the direction within Uno et al. WO 02/2978 and with a reasonable expectation of improving the performance characteristics based upon the disclosure of Sakaue et al. '587. The examiner holds that while the media are not optimized for 380-450 nm, the media are sensitive in that region due to the composition of the recording layers.

In addition to the basis above, the examiner points out that $Ta_2O_5$ is sputtered in nitrogen so the nitrogen content is that of an additive (reacting only with the surface of the sputtered $Ta_2O_5$ particles), not the dominant component in the teachings of Sakaue et al. '587 and that the appellant has not shown criticality for the full scope of coverage sought.

In addition to the response above, the examiner points out that the formation of TaO-N and TiO-N layers where the nitrogen content in the sputtering atmosphere is controlled is taught by Sakaue et al. '587. The rejection stands.

9. Claims 15, 17, 21, 23, 25, 27, 29, and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shuy et al. '160, in view of Sakaue et al. '587 and Takaoka et al. '321.

Shuy et al. '160 teach in embodiment 4, a medium comprising a polycarbonate substrate, a ZnS-$SiO_2$ layer, a transparent Si first recording layer, a reflective Si-Au second recording layer and a ZnS-$SiO_2$ layer. The ZnS-$SiO_2$ layers are thermal manipulation layers [0030]. The reflective recording layer may be Ag, Al, Au, Pt, Cu, In, Sn, W, Ir, Re, Rh or Ta [0027]. The transparent recording layer may be Si, Ge, GaP, GaAs, InAs, …[0026].

Takaoka et al. '321 (US equivalent of JP 60-160036 cited by appellant) teaches optical recording media where the recording layer is a bilayer which is alloyed upon irradiation. Useful first layer materials are Ge, Te, Bi, Tl and alloys thereof and useful second layer materials are different from those of the first layer and may be selected from Te, Bi, Sb, Ag, In and alloys thereof. (2/49-63). Figures 9 and 10 show embodiments where there are two recording layers, which doubles the recording capacity of the media. (4/60-5/9).

It would have been obvious to modify the cited examples of Shuy et al. '160 by using Ta-O-N as thermal manipulation layers in place of the ZnS-$SiO_2$ layers with a reasonable expectation of improving the performance characteristics based upon the disclosure of Sakaue et al. '587, and further, it would have been obvious to modify the resulting optical recording media by forming a medium with two recording layers are included in a single medium structure to increase (double) the recording capacity as shown in Takaoka et al. '321 with a reasonable expectation of success based upon Figures 9 and 10.

Further, it would have been obvious to use Si or Ge for the first recording layer and Cu and alloys thereof with Al, Ag, Au or Sn for the second layer based upon the direction within Shuy et al. '160 to these materials and the direction within Takaoka et al. '321 to the use of alloys in each of the layers.

The addition of Takaoka et al. '321 addresses the multiple recording layer limitations set forth in claim 15. The replacement of the $ZnS\text{-}SiO_2$ layers on both sides of the recording composite places the recited layer on the light incident side of the recording composite.

10. Claims 15, 17, 21, 23, 25, 27, 29 and 31-34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 17-27, 29 & 31 of copending Application No. 10/748979 (US 2004/0152016) in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

It would have been obvious to modify the claimed optical recording media of 10/748979 by using Ta-O-N as the intermediate layers with a reasonable expectation of forming a useful optical recording medium based upon the disclosure of Sakaue et al. '587 or Uno et al. '239, and further, it would have been obvious to modify the resulting optical recording media by forming a medium with two recording layers are included in a single medium structure to increase (double) the recording capacity as shown in Takaoka et al. '321 with a reasonable expectation of success based upon Figures 9 and 10 and noting the recitation of a plurality of recording layers in claim 17.

This is a provisional obviousness-type double patenting rejection.

11. Claims 15, 17, 21, 23, 25, 27, 29 and 31-34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3, 7, 10, 13, 16, 19, 22 & 25 of copending Application No. 10/717831 (US 2004/0110086).

It would have been obvious to use the dielectric layers described in claims 1 and 2 in the claimed optical recording media of 10/717831 including those using the Cu layer (cl 4), and further, it would have been obvious to modify the resulting optical recording media by forming a medium with two recording layers based upon the plurality of recording layers in recited in claim 1.

This is a provisional obviousness-type double patenting rejection.

12. Claims 15, 17, 21, 23, 25, 27, 29 and 31-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-24 of US patent 7018695 in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

It would have been obvious to modify the claimed optical recording media of US patent 7018695 by using Ta-O-N as the dielectric layers with a reasonable expectation of forming a useful optical recording medium based upon the disclosure of Sakaue et al. '587 or Uno et al. '239, and further, it would have been obvious to modify the resulting optical recording media by forming a medium with two recording layers are included in a single medium structure to increase (double) the recording capacity as shown in Takaoka et al. '321 with a reasonable expectation of success based upon Figures 9 and 10, noting the plural recording layers recited in claim 13.

The provisional nature of the rejection is withdrawn as the patent has issued.

13. Claims 15, 17, 21, 23, 25, 27, 29 and 31-34 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of

copending Application No. 10/764805 (US 2004/0157158) in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

It would have been obvious to modify the claimed optical recording media of 10/764805 by using Ta-O-N as the dielectric layers with a reasonable expectation of forming a useful optical recording medium based upon the disclosure of Sakaue et al. '587 or Uno et al. '239, and further, it would have been obvious to modify the resulting optical recording media by forming a medium with two recording layers are included in a single medium structure to increase (double) the recording capacity as shown in Takaoka et al. '321 with a reasonable expectation of success based upon Figures 9 and 10, noting the plural recording layers recited in claim 11.

This is a provisional obviousness-type double patenting rejection.

14. Claims 15, 17, 21, 23, 25, 27, 29 and 31-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of US patent 7276274, {formerly 10/613525 (US 2004/0052194)} in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

It would have been obvious to modify the claimed optical recording media of patent 7276274 by using Ta-O-N as the light transmission layers with a reasonable expectation of forming a useful optical recording medium based upon the disclosure of Sakaue et al. '587 or Uno et al. '239, and further, it would have been obvious to modify the resulting optical recording media by forming a medium with two recording layers are included in a single medium structure to increase (double) the recording capacity as shown in Takaoka et al. '321 with a reasonable

expectation of success based upon figures 9 and 10, noting the plural recording layers recited in claims 1 and 14.

The provisional nature of the rejection is withdrawn as the patent has issued.

15. Claims 15, 17, 21, 23, 25, 27, 29 and 31-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of patent 7321481 { formerly copending Application No. 10/612615 (US 2004/000493)} in view of Sakaue et al. '587 or Uno et al. '239, combined with Takaoka et al. '321.

It would have been obvious to modify the claimed optical recording media of patent 7321481 by using Ta-O-N as the light transmission layers with a reasonable expectation of forming a useful optical recording medium based upon the disclosure of Sakaue et al. '587 or Uno et al. '239 and further, it would have been obvious to modify the resulting optical recording media by forming a medium with two recording layers are included in a single medium structure to increase (double) the recording capacity as shown in Takaoka et al. '321 with a reasonable expectation of success based upon figures 9 and 10, noting the plural recording layers recited in claims 1 and 5.

The provisional nature of the rejection is withdrawn as the patent has issued.

**(10) Response to Argument**

**A)** The appellant argues that the dielectric layer of Uno et al. '239 is not on the correct (light incident) side of the recording layer, that the Ti-O-N and Ta-O-N layers of the prior art are not dielectrics and that the composition of the dielectric layer does not include $TiO_2$ and

$Ta_2O_5$ as the primary components with nitrogen as an additive. The appellant supports his arguments with a reproduction of Figure 2 of Uno et al. '239. (Brief at pages 4-7)

The rejection of the examiner is based upon the structure of Figures 7 and 8 as these include plural recording layers sandwiched on both sides by interface layers. Figure 8 is reproduced below, where layers 203,205,103&105 are interface layers and 104 & 204 are recording layers.

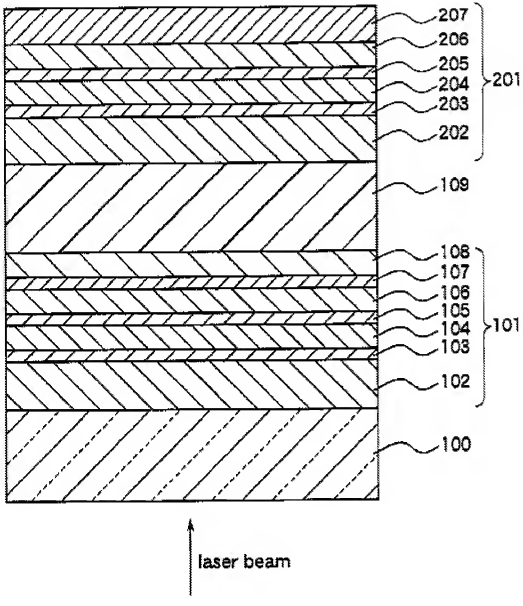

207
206
205
204
203
202
201
109
108
107
106
105
104
103
102
101
100
laser beam

FIG. 8

The Uno et al. '239 reference clearly teaches the interface layers on both sides of the recording layers in Figure 8, so the placement of the interface layers in the prior art are embraced by the claims language. The claims do not preclude the presence of other layers.

The language of column 8/lines 21-42 is reproduced below:

As the material forming the interface layers **3** and **5**, materials that can perform the above-mentioned roles may be acceptable. However, it is preferable that the material is one containing nitride, oxide nitride, oxide, carbide, or fluoride as the main component. In some cases, sulfide or selenide may be mixed. For example, Ge—N, Cr—N, Si—N, Al—N, Nb—N, Mo—N, Ti—N, Zr—N, Ta—N or the like can be used as nitride. As oxide nitride, Ge—O—N, Cr—O—N, Si—O—N, Al—O—N, Nb—O—N, Mo—O—N, Ti—O—N, Zr—O—N, Ta—O—N, or the like can be used. As oxide, $SiO_2$, $Al_2O_3$, $TiO_2$, $Ta_2O_5$, Zr—O, or the like can be used, and Ge—C, Cr—C, Si—C, Al—C, Ti—C, Zr—C, Ta—C, or the like can be used as carbide. Further, Li—F, Ca—F, or the like can be used as fluoride. Alternatively, a suitable mixture thereof may be used. When a suitable amount of sulfide or selenide is mixed, **ZnS, ZnSe,** or the like can be used. In any cases, the material used for the interface layers **3** and **5** may be one that does not disperse easily into the recording layer **4** or that does not easily hinder the optical change of the recording layer **4** even when dispersing into the recording layer **4** and that facilitates the crystallization of the recording layer **4** when being provided while being in contact with the recording layer **4**.

And it can clearly be seen that it teaches $TiO_2$ and $Ta_2O_5$ as well as Ti-O-N and Ta-O-N and from this it can clearly be inferred that the titanium or tantalum oxides in the Ti/Ta oxynitrides are present as $TiO_2$ or $Ta_2O_5$ and that this meets the primary component limitation as there is no lower range in the specification as to what "primary component" means. The position of the examiner is that if the Ti-O-N and Ta-O-N are even 50/50 oxygen/nitrogen, the claim is met. The appellant argues as if Ti-O-N and Ta-O-N were not dielectrics. They are inherently dielectrics, but more importantly, the claims describe them as such. The argued position is incongruent with the claimed invention. The other dielectric protective layers

described in the references should be recognized as merely unrecited layers in embodiments bounded by the open "comprising" language of the claims.

**B)** The appellant argues that the rejection based upon Uno et al. WO 02/2978 and Sakaue et al. '587 do not have the dielectric on the correct (light incident) side of the recording layer, that the Ti-O-N and Ta-O-N layers of the prior art are not dielectrics and that the composition of the dielectric layer does not include $TiO_2$ and $Ta_2O_5$ as the primary components with nitrogen as an additive. The appellant supports his arguments with a reproduction of Figures 1 & 2 of Sakaue et al. '587. (Brief at pages 8-11)

The position of the examiner relies upon Figures 1 and 3 of Uno et al. WO 02/2978, where layers 4 and 6 are interface layers and layers 5,103 & 203 are recording layers.

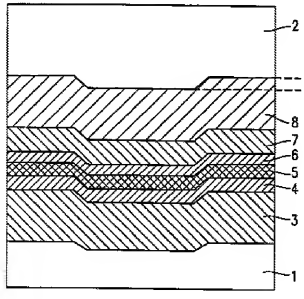



Figure 1

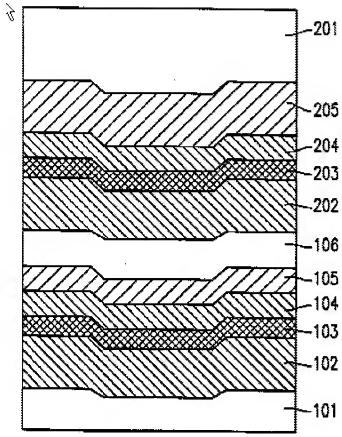



Figure 3

It is clear from Figure 1, that the use of interface layers on both sides of the recording layer is contemplated by Uno et al. WO 02/2978 and from Figure 3, the use of plural recording layers is clearly taught. As the use of interface layer on both sides of the recording layer is taught, at least one of these must be on the light incident side. Sakaue et al. '587 are relied upon to teach how to form the Ta-O-N or Ti-O-N by using sputtering . The use of a $Ta_2O_5$ as the sputtering target allows the 10% nitrogen atmosphere to nitride the surface of the sputtered particles. The appellant evidences that the use of 5 SCCM nitrogen in 50 sccm argon (~9% Nitrogen) is described as resulting in 3.3% nitrogen in the final coating [0179]. The position of

the examiner is that one of ordinary skill in the art would use the process of Sakaue et al. '587 for forming Ta-O-N or Ti-O-N layers on both sides of the recording layers of Figure 3 of Uno et al. WO 02/2978 to gain the benefits ascribed to the use of the interlayer. The rejection relies upon **Uno et al. WO 02/2978 and Sakaue et al. '587**, not Uno et al. WO 02/2978 or Sakaue et al. '587. In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

**C)** The appellant argues that the rejection over Shuy et al. '160, Sakaue et al. '587 and Takaoka et al. '321 do not teach all the limitations of the claims. The appellant argues that the dielectric layer of Shuy et al. '160 is not on the correct (light incident) side of the recording layer, that the Ti-O-N and Ta-O-N layers of the prior art are not dielectrics and that the composition of the dielectric layer does not include $TiO_2$ and $Ta_2O_5$ as the primary components with nitrogen as an additive. (brief at pages 11-12).

Figure 2A of Shuy et al. is reproduced below, noting that layers 20 and 50 are dielectric layers and layers 30 and 40 are the recording bilayer.

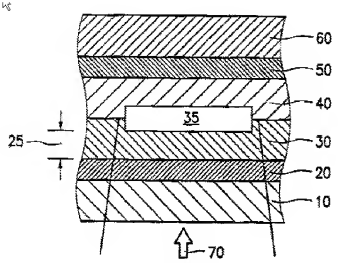
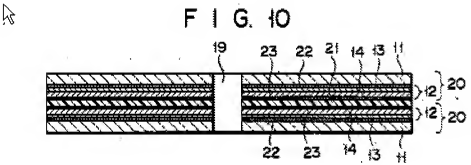



FIG. 2A

From Figure 2A and the cited example, it is evident that dielectric layers are present on both sides of the recording layer. The claims do not preclude the presence of other layers.

Figure 10 of Takaoka et al. teaches protective layers (22, 23) on both sides of the recording bilayer in a multirecording layer medium as well:



. Sakaue et al. '587 are relied upon to teach how to form the Ta-O-N or Ti-O-N by using sputtering. The use of a $Ta_2O_5$ as the sputtering target allow the 10% nitrogen atmosphere to nitride the surface of the sputtered particles. The appellant evidences that the use of 5 SCCM nitrogen in 50 sccm argon (~9% Nitrogen) is described as resulting in 3.3% nitrogen in the final coating [0179]. The position of the examiner is that one of ordinary skill in the art would use the process of Sakaue et al. '587 for forming Ta-O-N or Ti-O-N layers on both sides of the recording layers of Figure 2A of Shuy et al. and laminating these to form a multiple recording layer medium as shown by Takaoka et al., based upon the disclosure of the use of $Ta_2O_5$-N in place of ZnS-$SiO_2$ by Sakaue et al. '587 [0037]. The rejection relies upon Shuy et al. '160, Sakaue et al. '587 **and** Takaoka et al. '321, not Shuy et al. '160, Sakaue et al. '587 **or** Takaoka et al. '321. In response to appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The appellant fails to argue limitations beyond those recited in claim 15. (brief at page 13).

**(11) Related Proceeding(s) Appendix**

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

There is an appeal of application 10/406109, which is a related application and may or may not have a bearing on this appeal. It has not been docketed for a hearing on the Appeal yet.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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